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[54] **METHODS OF PREPARING ELECTROPHORETIC DISPERSIONS CONTAINING TWO TYPES OF PARTICLES WITH DIFFERENT COLORS AND OPPOSITE CHARGES**

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Related U.S. Application Data

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[52] **U.S. Cl.** **252/572**; 313/483; 359/296

[58] **Field of Search** ..... 252/572, 73, 77, 252/79; 313/483; 204/299 R; 359/296

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[57] **ABSTRACT**

A dielectric dispersion for use in an electrophoretic display includes a dielectric fluid, a first plurality of particles of a first color having a surface charge of a selected polarity dispersed within the dielectric fluid and a second plurality of particles of a second color having a surface charge of opposite polarity to that of the first plurality and a steric repulsion thereto preventing coagulation of the first and second pluralities. In one embodiment, the first and second plurality of particles are each formed by separate two stage dispersion polymerization reactions. Each set of particles is formed with unique secondary and functional monomers. Corresponding charge control agents are added to the dispersion to establish opposite polarities on the respective particles.

18 Claims, 1 Drawing Sheet